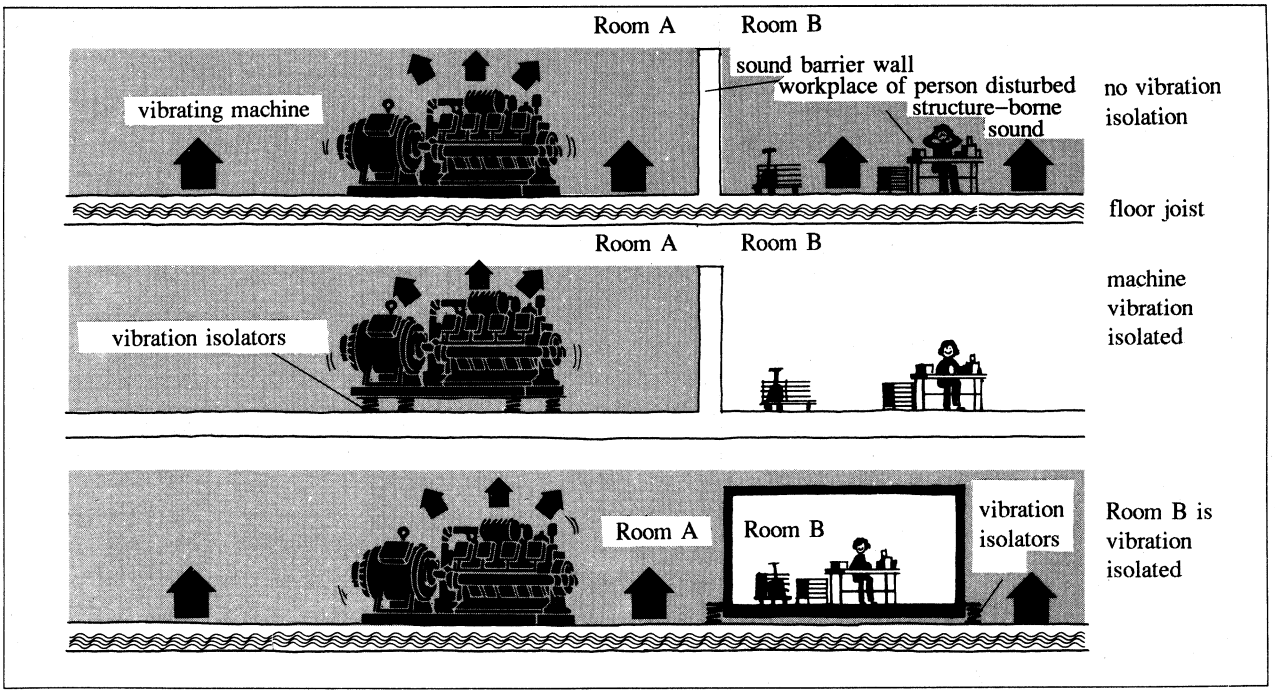
MACHINES CAN BE VIBRATION ISOLATED WITH FLEXIBLE ELEMENTS

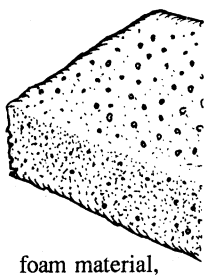
With elastic elements inserted between the base of a machine and the floor, the transmission of vibrations as solid–borne sound can be effectively reduced. The solid–borne sound transmitted from a machine room to other parts of the same building can be reduced either by vibration isolating the machines or by vibration isolating the room receiving the solid–borne sound from the building structure.

Principle

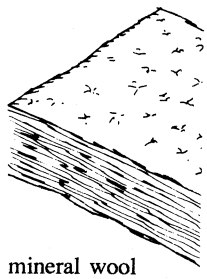


Example

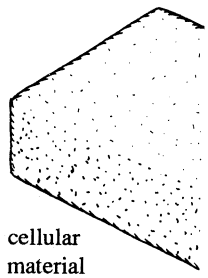
Vibration isolators are elastic units made of various materials and in various shapes. In many cases, springs with internal energy losses are useful. Of the natural materials, cork is best, followed by natural rubber. With synthetic rubber and special plastics, springs with very high internal damping can be obtained. A vast assortment of ready–to–mount vibration isolators is available.



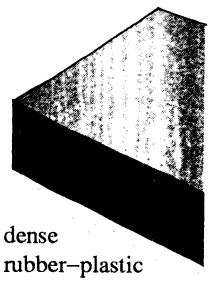
foam material,
rubber–plastic



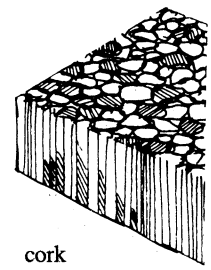
mineral wool



cellular
material
rubber–plastic

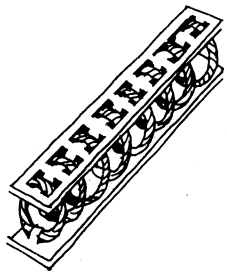


dense
rubber–plastic
material

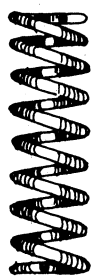


cork

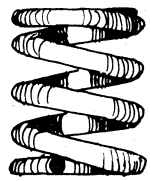
softer springs ◄— • —► stiffer springs



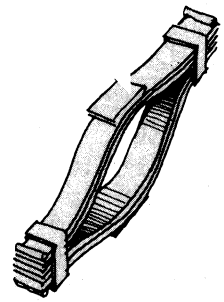
horizontal
wire coils



spiral spring,
long thin wire



spiral spring,
short thick wire



leaf spring

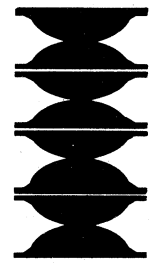


plate spring